

MATERIAL SAFETY DATA SHEET

Date Printed: 10/11/2005

Date Updated: 02/09/2005

Version 1.0

Section 1 - Product and Company Information

Product Name	HYDROGEN PEROXIDE 30% (W/W) SOLUTION
Product Number	H1009
Brand	SIGMA
Company	Sigma-Aldrich
Street Address	3050 Spruce Street
City, State, Zip, Country	SAINT LOUIS MO 63103 US
Technical Phone:	314 771 5765
Emergency Phone:	414 273 3850 Ext. 5996
Fax:	800 325 5052

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
HYDROGEN PEROXIDE, 30% SOLUTION	7722-84-1	No

Ingredient Name	CAS #	Percent	SARA 313
HYDROGEN PEROXIDE	7722-84-1	30	Yes
WATER	7732-18-5	70	No

Formula H2O2

Synonyms Albene 35 * Albene 50 * Albene 70 * Albene 35CG *
Albene 50CG * Albene 70CG * Hydrogen peroxide,
solution, 30% * Interlox * Kastone * Perone 30 *
Perone 35 * Perone 50

RTECS Number: MX0899000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful.

Harmful if swallowed. Risk of serious damage to eyes.

Possible Carcinogen (US). Target organ(s): Eyes. Respiratory system.

HMIS RATING

HEALTH: 3*

FLAMMABILITY: 0

REACTIVITY: 0

NFPA RATING

HEALTH: 3

FLAMMABILITY: 0

REACTIVITY: 0

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE

If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

DERMAL EXPOSURE

In case of contact, immediately wash skin with soap and copious amounts of water.

EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLASH POINT

N/A

AUTOIGNITION TEMP

N/A

FLAMMABILITY

N/A

EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s): Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Absorb on sand or vermiculite and place in closed containers for disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING

User Exposure: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Suitable: Keep tightly closed.
Store at 2-8°C

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Government approved respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

EXPOSURE LIMITS, RTECS

Country	Source	Type	Value
USA	MSHA Standard	air TWA	1 PPM (1.4 MG/M3)

Section 9 - Physical/Chemical Properties

Appearance	Physical State: Clear liquid
	Color: Colorless

Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	N/A	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	1.11 g/cm3	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point	N/A	
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Refractive Index	N/A	
Optical Rotation	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

N/A = not available

Section 10 - Stability and Reactivity

STABILITY

Stable: Stable.

Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: .

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: Causes severe eye irritation.

Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion: Harmful if swallowed.

TARGET ORGAN(S) OR SYSTEM(S)

Eyes. Respiratory system. Skin.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Oral

Woman

2.626 mg/kg

LDLO

Remarks: Gastrointestinal:Nausea or vomiting. Lungs, Thorax, or Respiration:Cyanosis. Behavioral:Coma.

Oral

Man

1429 mg/kg

LDLO

Remarks: Behavioral:Coma. Gastrointestinal:Nausea or vomiting. Gastrointestinal:Changes in structure or function of esophagus.

Skin

Rat

3000 mg/kg

LD50

Intravenous

Mouse

>50 GM/KG

LD50

Oral

Rabbit

820 mg/kg

LD50

Remarks: Gastrointestinal:Peritonitis. Blood:Pigmented or nucleated red blood cells. Blood:Changes in leukocyte (WBC) count.

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

Species: Mouse

Route of Application: Oral

Dose: 622 GM/KG
Exposure Time: 2Y
Frequency: C
Result: Gastrointestinal:Tumors. Tumorigenic:Carcinogenic by RTECS criteria.

Species: Mouse
Route of Application: Oral
Dose: 155 GM/KG
Exposure Time: 2Y
Frequency: C
Result: Gastrointestinal:Tumors. Tumorigenic:Carcinogenic by RTECS criteria.

IARC CARCINOGEN LIST

Rating: Group 3

ACGIH CARCINOGEN LIST

Rating: A3

CHRONIC EXPOSURE - MUTAGEN

Species: Human
Dose: 9 UMOL/L
Cell Type: lymphocyte
Mutation test: DNA damage

Species: Human
Dose: 50 UMOL/L
Cell Type: Embryo
Mutation test: Other mutation test systems

Species: Human
Dose: 20 UMOL/L
Cell Type: Embryo
Mutation test: Cytogenetic analysis

Species: Rat
Dose: 50 UMOL/L
Cell Type: lymphocyte
Mutation test: DNA damage

Species: Hamster
Dose: 250 UMOL/L
Cell Type: ovary
Mutation test: DNA inhibition

Species: Hamster
Dose: 60 UMOL/L
Cell Type: ovary
Mutation test: Cytogenetic analysis

Species: Hamster
Dose: 40 UMOL/L
Cell Type: ovary
Mutation test: Sister chromatid exchange

Species: Hamster
Dose: 1 MMOL/L
Cell Type: lung
Mutation test: Mutation in mammalian somatic cells.

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT

Proper Shipping Name: Hydrogen peroxide, aqueous solutions [with not less than 20 percent but not more than 40 percent hydrogen peroxide (stabilized as necessary)]

UN#: 2014

Class: 5.1

Packing Group: Packing Group II

Hazard Label: Oxidizer

Hazard Label: Corrosive

PIH: Not PIH

IATA

Proper Shipping Name: Hydrogen peroxide, aqueous solution

IATA UN Number: 2014

Hazard Class: 5.1

Packing Group: II

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xn

Indication of Danger: Harmful.

R: 22-41

Risk Statements: Harmful if swallowed. Risk of serious damage to eyes.

S: 26-39

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection.

US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Harmful.

Risk Statements: Harmful if swallowed. Risk of serious damage to eyes.

Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear eye/face protection.

US Statements: Possible Carcinogen (US). Target organ(s): Eyes. Respiratory system.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes

NDSL: No

Section 16 - Other Information

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2005 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.